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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,767	11/22/2000	Tsuyonobu Hatazawa	09792909-4673	2706

26263 7590 06/11/2002

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EXAMINER

CREPEAU, JONATHAN

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 06/11/2002

7

Please find below and/or attached an Office communication concerning this application or proceeding.

TC-7

Office Action Summary

Application No.

09/718,767

Applicant(s)

HATAZAWA ET AL.

Examiner

Jonathan S. Crepeau

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 2 is objected to because of the following informalities: at the end of the claim, the period is missing. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 95/13629 (Chaloner-Gill). Regarding claim 1, on page 7, line 16 et seq., the reference teaches a nonaqueous electrolyte battery comprising a lithium metal anode. Regarding claim 11, the battery is a secondary battery (see page 5, lines 6-8). With regard to claim 1, as shown in Figure 1, the battery element (10) is contained in an outer covering member composed of a laminated film (5) and is sealed by heat seals (32, 33, 34, 35). Regarding claims 1, 5, and 6, the battery comprises a gas absorbing material which is mixed with a resin material and extruded (i.e., molded) to form a gas absorbing member which forms one of the inner layers of the laminate (see page 5, lines 8-24). Regarding claims 2-4, the gas absorbing material may comprise a porous metal oxide (e.g., alumina) or activated carbon material (see page 19, lines 19 and 20).

Thus, the instant claims are anticipated.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 95/13629 in view of Kamauchi et al (U.S. Patent 5,538,814).

WO 95/13629 is applied to claims 1-6 and 11 for the reasons stated above.

However, WO 95/13629 does not expressly teach that the electrolyte is a gel electrolyte (claim 7), that the negative electrode contains a carbon intercalation material (claims 8, 9), or that the positive electrode contains a composite oxide of lithium and a transition metal (claim 10).

The patent of Kamauchi et al is directed to a lithium secondary battery. The battery may contain lithium cobalt oxide in the positive electrode (col. 4, line 30), a carbon negative electrode (col. 7, line 7), and a gel electrolyte containing a high molecular weight matrix polymer (col. 8, line 67; col. 11, line 5).

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the disclosure of Kamauchi et al. provides the artisan sufficient motivation to use these materials in the battery of WO 95/13629. In column 4,

line 41, Kamauchi et al. teach that the lithium cobalt oxide, when combined with other materials, provides the battery with "high electromotive force," and in column 7, lines 6-9, the reference teaches that the carbon negative electrode "effectively prevents dendrite[s] without lowering energy density of the secondary battery." Further, the reference teaches in column 12, lines 46-59 that the gel electrolyte "shows good adhesion with electrodes, which leads to an improved ionic conductivity." Accordingly, the artisan would be motivated to use each of these materials in the battery of WO 95/13629.

Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (703) 305-0051. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan, can be reached at (703) 308-2383. The phone number for the organization where this application or proceeding is assigned is (703) 305-5900. Additionally, documents may be faxed to (703) 305-5408 or (703) 305-5433.

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

JSC

June 9, 2002


Patrick Ryan
Supervisory Patent Examiner
Technology Center 1700